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هيئة التقييس لدول مجلس التعاون لدول الخليج العربية STANDARDIZATION ORGANIZATION FOR G.C.C (GSO)

Final draft

GSO 5/FDS 1057/ 2012 (E)

مركزات الطماطم المصنعة PROCESSED TOMATO CONCENTRATES

Prepared by:

Gulf technical committee for sector standards of Food and agriculture products This document is a draft Gulf standard circulated for comments, it is therefore, subject to alteration and modification, and may not be referred as a Gulf standard, until approved by the Board of Directors.

ICS:67.080

Foreword

GCC Standardization Organization (GSO) is a regional Organization which consists of the National Standards Bodies of GCC member States. One of GSO main functions is to issue Gulf Standards /Technical regulations through specialized technical committees (TCs).

GSO through the technical program of committee TC No 5 "" *Gulf technical committee for standards of food and agriculture products* " has updated the GSO " *PROCESSED TOMATO CONCENTRATES*" . The /Standard No. : 1057:2002 Draft Standard has been prepared by (*Kingdom of Saudi Arabia*).

This standard has been approved as a Gulf (Standard / Technical Regulation) by GSO Board of Directors in its meeting No.(),held on / / H , / G. The approved standard will replace and supersede the GSO standard No. (/).

PROCESSED TOMATO CONCENTRATES

Date of GSO Board of Directors' Approval :

Issuing Status : Technical Regulation

PROCESSED TOMATO CONCENTRATES

1. SCOPE

The standard is concerned with processed tomato concentrates and offered for direct consumption, including for catering purposes or for repacking if required

The Standard does not include products that contain seeds and skins and it does not include tomato (ketchup), tomato sauce or similar products, which are highly seasoned products of varying concentrations, containing ingredients such as pepper, onions vinegar, sugar etc. in quantities materially alter the flavour, aroma and taste of the tomato component.

2. COMPLEMENTARY REFERENCES

- 2.1 GSO 9 "Labelling of Prepackaged Foods".
- 2.2 GSO 20 "Methods for the determination of contaminating Elements in Food Stuffs".
- 2.3 GSO 21 "Hygienic Regulations for Food Plants and Thier Personnel".
- 2.4 GSO 22 "Methods of Test for Colouring Matter Used in Food Stuffs".
- 2.5 GSO 150 "Expiraiton Periods of Food Products Part 1".
- 2.6 GSO 244 "Methods of Test for Vegetables Fruits and Their Products Part 1: Organoleptic Examination Determination of Net Weight and Drained Weight, Determination of Apparent Viscosity, Determination of Head Space, Determination of Extraneous Matter and Defective Fruits".
- 2.7 GSO ISO 1842 "Fruit and Vegetable Products Determination of pH".
- 2.8 GSO 382 "Maximum Limits for Pesticide Residues in Agricultural Food Products Part 1".
- 2.9 GSO 383 "Maximum Limits for Pesticide Residues in Agricultural Food Products Part 2".
- 2.10 GSO 1016 "Microbiological Criteria for Foodstuffs Part 1".
- 2.11 GSO ISO 762 "Fruit and vegetable products Determination of mineral impurities content".
- 2.12 GSO ISO 2173 "Fruit and Vegetable Products Determination of Soluble Solids Content Refractometric Method".
- 2.13 GSO 1287 "Method for sampling for Canned Fruits and Vegetable Products".
- 2.14 GSO Standard ON "Method for Determination of Pesticide Residues in Agricultural Food Products".
- 2.15 GSO 1794 "The wo piece steel round cans used for canning food-stuffs".

- 2.16 GSO GSO 1791 "Three piece steel round cans used for canning food stuffs".
- 2.17 GSO 988. "Limits of radionativity levels permitted in foods stuff part 1".
- 2.18 GSO 998"METHOD FOR DETECTION OF PERMISSIBLE RADIONUCLIDES LIMITS IN FOOD PART 1: GAMMA SPECTROMETRY ANALYSIS A Cs 134, Cs 137".
- 2.19 GSO 1843 " Food Grade Salt ".
- 2.20 GSO 1694 "GENERAL PRINCIPLES OF FOOD HYGIENE".
- 2.21 GSO CAC 193 "General Standard for contaminants & toxins in food".
- 2.22 GSO 839 "Food Packages Part 1– General Requirements".

3. **DEFINITIONS**

- Processed_tomato concentrates: A product prepared by concentration the liquid obtained form substantially sound mature red tomatoes (*Lycopersicon/Lycopersicum esculentum P. Mill*) after removal of skins, seeds stems and other coarse substances in the finished products. It contains not less than 7% natural tomato soluble solids¹, but not dehydrated to a dry powder or flake form, water and salt (sodium chloride) and seasoning ingredients stated in this standard may be added item 4.10. The products are preserved by any suitable means of preservations.
- 3.1.1 Tomato puree: A processed tomato concentrate product (3.1) packed in a hygienic suitable containers and containing from 7 % to less than 24 % natural tomato soluble solids.
- 3.1.2 Tomato paste: A processed tomato concentrate product packed in a hygienic suitable containers and containing not less 24% natural tomato solids soluble.

4. **REQUIREMENTS**

The following requirements shall be met in tomato concentrates:

- 4.1 It shall be completely free from pig products or its derivatives.
- 4.2 All raw materials used in the Processing of the product shall be in compliance with relevant GSO standard.
- 4.3 The product shall be processed in hygienic plants complying with GSO standards (items 2.3 and 2.20).
- 4.4 It shall be prepared from the tomato liquid or any combination <u>from</u> it and one of the following liquid.
- 4.4.1 The liquid obtained <u>from</u> residue left from preparing such tomatoes for canning.

¹ The concentrations are measured on the product without added salt

- 4.4.2 The liquid obtained from the residue left from partial extraction of such tomatoes juice.
- 4.5 Almost free from defects as dark specks, scale or their particles, seeds or their particles, or other similar substance other than seasoning or flovouring ingredients stated in item 4.10.
- It shall have a good consistency and homogeneity and free from lumps. 46
- 4.7 When the product is diluted with water to reach a concentration of approximately 7% natural tomato soluble solids, the product shall have a good taste, a characteristic odor and flavor, free from bitter or burnt taste or any objectionable flavor
- 4.8 When the product is diluted with water to reach a concentration of approximately 7% natural tomato soluble solids, the product shall have a bright typical red color of tomato products. And when the product is packed in glass containers it shall not show discoloration in the neck of this containers.
- The mineral impurity² content shall not exceed 0.1% of the natural total soluble 4.9 solids content
- 4.10 Addition of the following seasoning or flavouring is permitted:
 - Salt, natural vegetable products (basil leaf, onions, etc), Lemon juice (single strength or concentrated) used as an acidulant.
- 4.11 Addition of sugar, sweeteners (Sugar substitutes) or any colouring or thickening agents to the products is not permitted.

4.12 Permitted additives

4.12.1 pH Regulating agents may be added to maintain the pH be below 4.6

INS No.	Name of the Food Additive	Maximum Level
330	Citric Acid	GMP
331(i)	Sodium dihydrogen citrate	
331(iii)	Trisodium citrate	
332(i)	Potassium dihydrogen citrate	
332(iii)	Tripotassium citrate	
333	Calcium citrates	
270	Lactic acid	1% of the natural total soluble solids content

² Sand, soil and any other impurities insoluble in hydrochloric acid.

4.13 Contamination

The toxins and contaminants limits shall not exceed those stated in GSO standards stated in item (2.21).

- 4.14 The limits of pesticide residues shall not exceed those stated in GSO standards (items 2.8 and 2.9).
- 4.15 The microbilogical limits shall be according to GSO standard (item 2.10).
- 4.16 The levels of radioactivity shall not exceed those stated in GSO standard (item 2.17).

5. SAMPLING

Samples shall be taken according to the GSO standard (item 2.13).

6. METHODS OF TESTING AND TESTS

6.1 **Method of testing**

- 6.1.1 Determination of soluble solids shall be carried out according to GSO Standard (item 2.12).
- 6.1.2 Determination of mineral impurities shall be carried out according to GSO Standard (item 2.11)
- 6.1.3 Determination of contaminating elements shall be carried out according to GSO Standard (item 2.2).
- 6.1.4 Determination of artificial colour shall be carried out according to GSO Standard (item 2.4)
- 6.1.5 Determination of extraneous matter shall be carried out according to GSO Standard (item 2.6).
- 6.1.6 Determination of the pH shall be carried out according to GSO Standard (item 2.7).
- 6.1.7 Determination of the limits of pesticide residues shall be carried out according to GSO Standard (item 2.14).
- 6.1.8 Detection of limits of radioactivity shall be carried out according to GSO Standard (item 2.18).

6.2 Tests

Representative samples drawn according to item (5), shall be tested to determine its compliance with limits of this standard.

7. PACKAGING TRANSPORTATION AND STORAGE

The following requirements shall be followed during packaging, transportation and storage:

7.1 **Packaging**

Without prejudice to the provisions of GSO standards mentioned in items 2.22 the following shall be met:

- 7.1.1 The product shall be packed in hygienic clean and hermetically sealed container which is free from mechanical leakage to avoid any changes in its properties during storage.
- 7.1.2 In case of tin containers they shall be plated with coating suitable for canning tomato concentrates products and shall comply with the GSO standards (items 2.15 and 2.16).
- 7.1.3 The product shall occupy not less than 90% by volume of the water capacity of container.

7.2 **Transportation**

Transportation shall be transfered in such away so as to protected containers from mechanical damage and continuation.

7.3 **Storage**

The product shall be stored at a well ventilated place far from source of direct heat, moisture and contamination

8. LABELLING

Without prejudice of the requirements mentioned in GSO standards (item 2.1 and 2.5) the following information shall be declared:

- 8.1 Tomato puree: If the product contains from 7 % to less than 24 % natural tomato soluble solids.
- 8.2 Tomato paste: If the product contains not less 24% natural tomato solids soluble.
- When any of the optional ingredients is added, its presence shall be stated on the label.
- 8.4 Storage conditions.
- 8.5 The percentage solids may be included on the label in either of the following manners:
- 8.5.1 The minimum percentage of natural total soluble solids (example: "Minimum Solids 20%").
- 8.5.2 A range within 2% of the natural total soluble solids (example: "Solids 20% to 22%").

REFERENCES

CODEX STANDARD FOR PROCESSED TOMATO CONCENTRATES (CODEX STAN 57-2007)